

Summary of Cancer Incidence and Mortality for Abbeville County, SC

Cancer Incidence in Abbeville County

The first step in the analysis of cancer data for this county was to look at the number of new cancer cases diagnosed in the county and compare this to the number of cancer cases expected in this county (see Table 1). This first step determines if there is anything unusual with cancer patterns in the area. The number of "expected" cancer cases is calculated by using South Carolina cancer rates and applying them to the population of each county.

Table 1 shows what types of cancer were diagnosed in Abbeville County from 1996-2000, and how many cancer cases were expected. Overall, there were fewer cases of cancer than expected in Abbeville county. The most common types of cancer in this county were lung, colon/rectum, female breast and prostate cancers. These types of cancer are also the most common cancers occurring across all of South Carolina.

The analysis revealed no specific types of cancer where the number of cases was significantly higher than expected.

Cancer Deaths in Abbeville County

To assess cancer deaths in this county, cancer mortality data from 1998-2002 were used. The process used to analyze new cancer cases was also used to analyze cancer deaths. Table 2 shows the number of cancer deaths that occurred in this county and the number expected. Overall, there were fewer cancer deaths than expected in Abbeville County.

The analysis revealed no specific cancer sites had a significantly higher then expected number of cancer deaths.

Conclusions

To summarize, overall fewer cases of cancer occurred in Abbeville County than expected. The number of cancer deaths was also less than expected. There were no specific cancer types with an increased number of cases or deaths.

In order for a true cancer cluster to exist, the number of cancers occurring must be more than would be expected by chance. Along with statistical testing, there are several other criteria that determine whether a true cancer cluster exists. First, a cancer cluster would more likely involve rarer types of cancer rather than more common cancers like lung or prostate cancers. Also, a cancer cluster would occur with one specific type of cancer rather than having excesses in several different types of cancer.

Taking all these criteria into consideration, the South Carolina Central Cancer Registry determined there is no evidence of cancer clustering in Abbeville County.

For questions about this report, please contact Susan Bolick-Aldrich, MSPH, Director of the South Carolina Central Cancer Registry.

Report provided by:

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Table 1. Analysis of New Cancer Cases in Abbeville County, 1996-2000

Site	Observed	Expected	Observed/Expected	Chi-SquareTest*
Prostate	106	108.42	0.98	0.05
Lung/Bronchus	90	102.26	0.88	1.47
Breast (Female)	88	92.68	0.95	0.24
Colon/Rectum	80	75.04	1.07	0.33
Bladder	27	25.82	1.05	0.05
Melanoma	22	20.92	1.05	0.06
Oral/Pharynx	22	18.05	1.22	0.86
Non-Hodgkin Lymphoma	21	20.81	1.01	0.00
Pancreas	15	14.74	1.02	0.00
Ovary	15	10.36	1.45	2.08
Kidney/Renal Pelvis	14	16.06	0.87	0.26
Uterus	12	15.39	0.78	0.75
Leukemia	12	12.38	0.97	0.01
Esophagus	11	8.79	1.25	0.56
Stomach	10	10.30	0.97	0.01
Multiple Myeloma	9	7.31	1.23	0.39
Cervix	8	8.21	0.97	0.01
Thyroid	8	6.16	1.30	0.55
Larynx	7	7.82	0.89	0.09
Brain/CNS	3	8.41	0.36	3.48
Unknown/III-Defined	14	NA	NA	NA
All Sites	621	639.85	0.97	0.56

Excludes in situ cases of cancer to allow for comparison.

Cancer sites with less than 5 cases of cancer expected are not analyzed due to the unreliability of statistical tests based on small numbers. These sites have been removed from this table.

*The Chi-Square statistical test allows us to determine if the difference between what is observed and what is expected is significant. If the value is greater than 3.84, then we are 95% confident that the observed number of cases is significantly different from the expected number of cases.

Prepared by: SC Central Cancer Registry, Office of Public Health Statistics and Information Services, Department of Health and Environmental Control, 2600 Bull St., Columbia, SC 29201
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Table 2. Analysis of Cancer Deaths in Abbeville County, 1998-2002

<u>CancerSite</u>	<u>Observed</u>	<u>Expected</u>	<u>Observed/Expected</u>	<u>Chi-SquareTest</u>
Lung/Bronchus	88	89.60	0.98	0.03
Colon/Rectum	31	30.57	1.01	0.01
Unknown/III-Defined	24	18.78	1.28	1.45
Female Breast	22	21.93	1.00	0.00
Prostate	19	22.31	0.85	0.49
Pancreas	13	17.00	0.76	0.94
Oral/Pharynx	9	5.73	1.57	1.87
Non-Hodgkins Disease	8	11.10	0.72	0.87
Ovary	8	6.97	1.15	0.15
Leukemia	7	10.83	0.65	1.35
Esophagus	7	7.38	0.95	0.02
Liver	6	5.84	1.03	0.00
Stomach	5	7.76	0.64	0.98
Bladder	4	5.94	0.67	0.64
Multiple Myeloma	2	7.12	0.28	3.68
Brain/CNS	1	7.48	0.13	5.62
Kidney/Renal Pelvis	1	6.23	0.16	4.39
All Sites	275	306.44	0.90	3.23

Excludes in situ cases of cancer to allow for comparison.

Cancer sites with less than 5 cancer deaths expected are not analyzed due to the unreliability of statistical tests based on small numbers. These sites have been removed from this table.

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